

REMARKS

The Office Action dated November 10, 2003, has been received and carefully noted. The above amendments and the following remarks are submitted as a full and complete response thereto.

By this amendment, claims 1, 6, and 7 have been amended. Claims 8-10 have been added. No new matter has been added. Claims 1-10 are respectfully submitted for consideration.

Claim 6 was rejected under 35 U.S.C. §102(b) as being anticipated by Bagepalli et al. (U.S. Patent No. 6,030,175, "Bagepalli"). The Applicant traverses the rejection and respectfully submits that claim 6 recites subject matter that is neither disclosed nor suggested by Bagepalli.

According to U.S. patent practice, a reference must teach every element of a claim in order to properly anticipate the claim under 35 U.S.C. §102. In addition, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628,631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "Every element of the claimed invention must be arranged as in the claim . . . the identical invention, specifically, [t]he identical invention must be shown in as complete detail as contained in the claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236 (Fed. Cir. 1989) (emphasis added).

The Applicant respectfully submits that Bagepalli does not disclose or suggest the claimed features of the invention. Claim 6 recites split-body parts which hold the brush seal and each of which has connecting portions that are split and that extend

along the splitting surfaces, wherein each of the splitting surfaces has not only axial step but also radial step, the splitting surfaces are formed at different positions on both sides of the brush seal. In contrast, Bagepalli does not disclose that each of the labyrinth-seal segments 26, 28 has connecting portions, that are split. The Office Action took the position that the mounting block 30 in Bagepalli was comparable to connecting portions of each labyrinth-seal segment 26, 28. However, the mounting block 30 in Bagepalli is a single portion and is not split or a plurality of portions as it relates to each labyrinth-seal segment 26, 28.

Furthermore, although the Office Action took the position that hybrid seal segments 10, 12, 14, 16, 18 and 20 were comparable to the split body parts of the present invention, each of these hybrid seal segments, does not have connecting portions that are split. As such, the Applicant respectfully requests that the Examiner identify the split in the mounting block 30 on each hybrid seal segment

The Applicant further submits that mounting block 30 does not extend along the end surfaces 48 and 50 because end surfaces 48 and 50 are parts of the mounting block. In addition, the mounting block 30 also does not extend along end surfaces 56, 58, 60 and 62. As can be seen from the figures, the mounting block is disposed along the upper surfaces of the labyrinth-seal segments 26 and 28.

Furthermore, the Applicant respectfully submits that Bagepalli fails to disclose or suggest the features of claim 6, as amended, which recites that the splitting surfaces are formed at different positions on both sides of the brush seal. Since the splitting surfaces in the present invention are formed at different positions on both sides of the brush seal, leak flows axially across the split body parts can be effectively prevented. In

contrast, Bagepalli discloses that “the first and second labyrinth-seal segments each have generally radially-aligned circumferential ends.” See column 2, lines 17-19 of Bagepalli. As shown in the Figures of Bagepalli, the labyrinth-seal segments 26 and 28 of Bagepalli are formed at the same position on both sides of the brush seal segment 32. Therefore, any leak flows across the upper surfaces of the labyrinth-seal segments 26 and 28 are straight and cannot be prevented. Accordingly, Bagepalli does not disclose or suggest that splitting surfaces are formed at different positions on both sides of the brush seal as recited in claim 6.

Claim 6 further recites that the radial step is formed along a radial way of the circumferential clearance in order that the circumferential clearance is interrupted by the radial step. Bagepalli does not disclose a circumferential clearance is interrupted by a radial step.

As such, Bagepalli fails to disclose or suggest split body parts which hold the brush seal and each of which has connecting portions that are split and that extend along the splitting surfaces, and that the splitting surfaces are formed at different positions on both sides of the brush seal. Bagepalli further fails to disclose a circumferential clearance is interrupted by a radial step. For at least the combination of foregoing reasons, the Applicant respectfully submits that Bagepalli fails to disclose or suggest the present invention as claimed in claim 6.

Claims 1, 2, 4, 5, and 7 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bagepalli et al. (U.S. Patent No. 6,030,175, “Bagepalli”) in view of Tong (U.S. Patent No. 6,431,550). Bagepalli was cited for disclosing many of the claimed elements of the invention with the exception of each of the splitting direction-

extending surfaces having shutoff means for sealing a gap between the splitting direction-extending surfaces that are combined with each other. Tong was cited for curing these deficiencies. The Applicant traverses the rejection and respectfully submits that claims 1, 2, 4, 5, and 7, recite subject matter that is neither disclosed nor suggested by the cited prior art. Claims 2, 4, and 5 depend from claim 1.

Under U.S. patent practice, the PTO has the burden under §103 to establish a *prima facie* case of obviousness. In re Fine, 5 U.S.P.Q.2nd 1596, 1598 (Fed. Cir. 1988). Both the case law of the Federal Circuit and the PTO itself have made clear that where a modification must be made to the prior art to reject or invalidate a claim under §103, there must be a showing of proper motivation to do so. The mere fact that a prior art reference could arguably be modified to meet the claim is insufficient to establish obviousness. The PTO can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. Id. In order to establish obviousness, there must be a suggestion or motivation in the reference to do so. See also In re Gordon, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984) (prior art could not be turned upside down without motivation to do so); In re Rouffet, 149 F.3d 1350 (Fed. Cir. 1998); In re Dembicza, 175 F.3d 994 (Fed. Cir. 1999); In re Lee, 277 F.3d 1338 (Fed. Cir. 2002).

The Applicant respectfully submits that the combination of Bagepalli and Tong fails to disclose or suggest each and every feature of the invention as recited in claim 1 which recites, split-body parts which hold the brush seal and each of which has connecting portions that are split and that extend along the splitting surfaces. As

discussed above with respect to claim 6, Bagepalli fails to disclose at least the feature of split body parts which hold the brush seal and each of which has connecting portions that are split and that extend along the splitting surfaces. Tong fails to cure this deficiency in Bagepalli with respect to claim 1, as Tong fails to disclose split-body parts which hold the brush seal and each of which has connecting portions that are split and that extend along the splitting surfaces.

Also, the Applicant respectfully submits that the combination of Bagepalli and Tong fails to disclose or suggest the features of claims 1 and 7, as amended. Claims 1 and 7 recite that the splitting surfaces are formed at different positions on both sides of the brush seal. In contrast, Bagepalli discloses that “the first and second labyrinth-seal segments each have generally radially-aligned circumferential ends.” See column 2, lines 17-19 of Bagepalli. Also, the Figures of Bagepalli show that the labyrinth-seal segments 26 and 28 of Bagepalli are formed at the same position on both sides of the brush seal segment 32. Therefore, Bagepalli does not disclose or suggest that splitting surfaces are formed at different positions on both sides of the brush seal as recited in claims 1 and 7.

Tong fails to cure this deficiency in Bagepalli with respect to claims 1 and 7, as Tong fails to disclose splitting surfaces are formed at different positions on both sides of the brush seal.

Claim 7 also recites the split-body parts which hold the brush seal and each of which has connecting portions that are split and that extend along the splitting surfaces, wherein each of the splitting surfaces has an axial step and sealing means are disposed between opposed faces of splitting direction-extending surfaces of the splitting surfaces.

As discussed above, with respect to claims 1 and 6, Bagepalli fails to disclose or suggest connecting portions that are split. Tong fails to cure this deficiency in Bagepalli, as Tong also fails to disclose connecting portions that are split. Therefore, for similar reasons, Bagepalli and Tong fail to disclose or suggest this feature as recited in claim 7. In view of the above, the Applicants respectfully submit that the combination of Bagepalli and Tong fails to disclose or suggest each and every feature of the invention as recited in claims 1, 2, 4, 5 and 7.

Claim 3 was rejected under 35 U.S.C. §103(a) as being unpatentable over Bagepalli in view of Tong and further view of Julien et al. (U.S. Patent No. 5,226,683, "Julien"). Bagepalli and Tong were cited for disclosing many of the claimed elements of the invention with the exception of the shutoff means having a sealing plate made from a super-elastic alloy material on the contact surfaces. Julien was cited for curing this deficiency. The Applicant respectfully submits that claim 3 recites subject matter that is neither disclosed nor suggested by the cited prior art.

With respect to claim 3 the Applicant respectfully submits that the combination of Bagepalli, Tong and Julien fails to disclose or suggest the claimed features of the invention. Claim 3 depends from claim 1. As discussed above, Bagepalli and Tong fail to disclose the split-body parts having connecting portions that are split. Bagepalli and Tong also fail to disclose or suggest splitting surfaces formed at different positions on both sides of a brush seal. Julien fails to cure the above-noted deficiencies in Bagepalli and Tong as the reference does not disclose or suggest split-body parts having connecting portions that are split, or splitting surfaces formed at different positions on both sides of a brush seal. As such, Bagepalli, Tong, and Julien, either singly or in

combination, fail to disclose or suggest the features of the invention as recited in claim 1 and, therefore, dependent claim 3. Therefore, in view of the above, the Applicant respectfully submits that the Office Action has failed to establish a *prima facie* case of obviousness for purposes of a rejection of claims 1-5 and 7 under 35 U.S.C. §103.

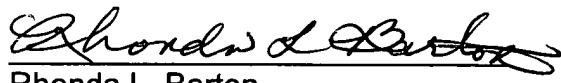
New claims 8-10 have been added. Claim 8 recites that the radial step is formed at a position between a tip end and base end of a brush of the brush seal. Claim 9 recites that the radial step and the axial step are formed at only one side of the brush seal. Claim 10 recites that the different positions comprise different radial planes. As such, the Applicant submits that claims 8-10 are allowable for their dependency from claim 6 as well as for the subject matter recited therein.

Claims 2-5 depend from claim 1 and claims 8-10 depend from claim 6. The Applicant respectfully submits that these dependent claims are allowable for at least because of their dependency from allowable base claim 1. Accordingly, the Applicant respectfully requests allowance of claims 1-10 and the prompt issuance of a Notice of Allowability.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing attorney docket no. 108179-00006**.

Respectfully submitted,


Rhonda L. Barton
Attorney for Applicant
Registration No. 47,271

Customer No. 004372
ARENT FOX KINTNER PLOTKIN & KAHN, PLLC
1050 Connecticut Avenue, N.W.,
Suite 400
Washington, D.C. 20036-5339
Tel: (202) 857-6000
Fax: (202) 638-4810

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Enclosure: Petition for Extension of Time (1 month)

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